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Acceptance and Usage of Web 2.0 Services in Libraries: A Survey

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ABSTRACT

Internet and web technologies have triggered unprecedented changes in libraries. Web 2.0 services, especially the emergence of services like Instant Messaging, Streaming media, Blogs, News feeds, Social bookmarking tools, Tagging etc., have revolutionized the internet and online experience. Social Networking has become an integral part of today's professional and social living. While there is no doubt that these tools are used very effectively in library and Information profession, there is a need to analyze and see how it has been used in libraries through proper surveys. Keeping that in mind ETTILIS embarked on a user survey with basic web 2.0 related questions. This two paper looks at the emerging web 2.0 services for libraries with an elaborate analysis and provides the result of the survey conducted on the usage of web 2.0 services especially for libraries..

Keywords

Web 2.0 Application in Libraries, Web Services, Book Marking, Library Usage Optimization.

1. INTRODUCTION

Advancement of Information and Communication Technologies along with the changing perception of ICT consumers have resulted in an unprecedented change throughout the world. The evolution of internet technologies and the

consumer-centered development of applications have created new and exciting opportunities in the fields of information. While these advancements have triggered a wave of change and optimism in the entire digital ecosystem, it has also spurred an enormous change in libraries and information services especially in academic institutions. Chowdhury (2006) observes that "ICT and internet technologies have changed the nature of libraries in all sectors, they have also changed the perception and expectations of the user community". As a result the users of the libraries are no longer simply 'readers' of books instead they have become 'information seekers'. The advancement of library and information dissemination has further transformed them into information confirmers. With the readers proximity with technology they are also elevated into the position of 'information consolidators'.

These changes in libraries started with the advent of digital contents into the libraries and further enhanced with the incorporation of web based digital contents into its collection. While e-books are rapidly making inroads into the library collections, "electronic journals and databases have firmly established themselves as essential resources for libraries and their users" (Vasileiou 2009: 173). Access to these electronic journals and databases necessitate web based interface and interaction. Schmiede feels that the "internet with its world wide web interface has become part and parcel of normal academic life". While the advent of internet services initiated the transformation process the second generation of web services which are referred to as web 2.0 seems to be triggering a new wave of services and technologies. With the web 2.0 services there seems to be a remarkable increase in websites which offer social networking and online applications where, people interact, share resources, create and recreate ideas, tag and label content and rate it in some way or the other. Another important common aspect in these applications is its emphasis on online collaboration and the sharing.

2. WEB 2.0 TECHNOLOGY AND ITS FEATURES

The term Web 2.0 was coined by O'Reilly Media (an American media company) to distinguish between the old and the new generations of websites. Razmerita observes that "in the last few years we have witnessed a transformation of the web from a static web towards a 'living web' where the users bring content, collaborate and share knowledge" (Razmerita 2009: 1026). This transformation of web from static to dynamic is termed as Web 2.0. while most people think web 2.0 is a standard, O'Reilly himself pro-

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jected web 2.0 as a collection of ideas on the perceived services of the next generation of web. Minsk observes that "in recent years, new software design patterns and business models are observed on the Web which is commonly referred to as Web 2.0 (Minsk, 2007: 315)" These designs and patterns can be observed as a new experience for lot of users. The result of this new experience is the emergence of services like Instant Messaging, Steaming media, Blogs, News feeds, Social bookmarking tools, Tagging and AJAX, which are grouped together called as Web 2.0 services. Using these tools "people do not only passively consume information; rather, they are active contributors, even customizing tools and technology for their use" (Razmerita 2009: 1026). These revolutionary ideas are new to libraries yet they are very important for consolidation of information as the users are now able to identify, seek, confirm and consolidate the kind of information which they look for.

3. WEB 2.0 AND LIBRARY 2.0

The second generation of libraries (Library 2.0) can be broadly classified as services which make use of the Web 2.0 tools and services in order to guide towards the next level of information service delivery and usage. The exciting Web 2.0 tools such as Synchronous Communication (Instant Messaging), Content Delivery (RSS Feeds, News Feeds), Streaming Media, Collaborative Publishing Tools (Blogs, Wikis, Tagging etc.), and Social Networks provide ample scope for exciting content delivery to library users and they are slowly becoming part of the library services. Many librarians and Integrated Library Systems (ILS) use these exciting tools to bridge the gap between the user and the information. Most of the services and tools of library 2.0 are not new to libraries and librarians. In fact these services are extensions and developments of what the libraries have been doing for a very long time. But the collective outcome of these extended services is that there is a revolutionary change in the face of the library and its users. During this time of change, it is imperative that the perception of the creators of the information, the library practitioners, is to be gauged so that a proper guidance can be achieved. This paper is one such attempt to read the perception of the library professional towards their awareness of change and see how far they have adjusted to the changed.

4. OBJECTIVES

The main objectives of this survey are to analyze:

- The level of various web 2.0 services used by library practitioners
- The understanding of various web 2.0 services pertaining to libraries
- What makes the library professionals to use the web 2.0 services
- The specific library applications pertaining to web 2.0 used; and
- The challenges they face in using web 2.0 services

5. METHODOLOGY

Considering the proximity of web 2.0 tools and technologies with libraries and librarians the authors of this paper

embarked on a survey to see how far these services have penetrated into the library services and how far the practicing librarians are using these tools. This survey was conducted through the web based questionnaire posted at E-TTLIS@Ning Social networking site. This survey was a web based questionnaire. An open invitation was circulated for users to participate in this survey. An over whelming response to this survey showed that there is a lot of enthusiasm among the library practitioners to respond to the questions of web 2.0 tools and technologies for libraries.

A total number of 452 responses were collected through this survey. A geographical distribution of professionals from 43 countries participated in the survey. Table 1 shows the geographical distribution of the top 15 country respondents with their number and percentage of representation in the survey. It is of importance to note that close to 67.6% of respondents were from India, followed by USA, Pakistan, Malaysia and Srilanka.

Table 1: Top 15 Countries Participation in Survey

	Country	Nos	%age
1	India	307	67.621
2	USA	31	6.828
3	Pakistan	28	6.167
4	Malayasia	10	2.203
5	Srilanka	9	1.982
6	Nigeria	7	1.542
7	Australia	5	1.101
8	Iran	5	1.101
9	Phillipines	4	0.881
10	Egypt	3	0.661
11	South Afrika	3	0.661
12	Spain	3	0.661
13	Canada	2	0.441
14	Indonesia	2	0.441
15	Italy	2	0.441

The respondents were also asked to denote their profession to see how far the respondents are related to the library profession. Close to 82% of the respondents were from the Library profession either practicing librarians are retired or Library Science teachers. Close to 11.5% of the respondents were students and 6.5% were from other profession. Among the respondents majority of them were either holders of Masters degree in Library Science or above.

6. FINDINGS

6.1 Awareness of Web 2.0 and its services

The major question which the researchers wanted to find out was to find the penetration of web 2.0 in library profession mainly on its awareness and rate of awareness. In order to find that a single question with the level of awareness and participation was framed. Table 3 shows the awareness of web 2.0 among the respondents. It's encouraging to note that close to 83% of the respondents are well aware of web 2.0. and among them close to 41/2% of them have actually

Table 2: Profession wise survey response

Profession	No	%age
Professional Librarian	336	74.3
Retired Librarian	3	0.7
Library Science Teacher	30	6.6
Retired Lib. Sci. Teacher	3	0.7
Students	51	11.3
Others	29	6.4
Total	452	100.0

used them consistently while 7.7% of them have used it occasionally. A disheartening 34.1% of the respondents have not used the web 2.0 tools and technologies though they were aware of it. While we ascertained that a majority of the

Table 3: Web 2.0 Awareness

Web 2.0 Awareness		
		%
Yes & used	186	41.2
yes & used occasionally	35	7.7
yes & not used	154	34.1
No	77	17.0
Total	452	100.0

respondents were either used or aware of the web 2.0 tools and technologies a very pointed question was asked about the awareness of different web 2.0 services. Table below gives a glimpse of the different services which are known to the respondents. Popular among them are Blogs which close to 59% of the respondents have either used or they are aware of followed by Social Networking which may comprise of any of the tools organised through Social Networking Sites, followed by News Feeds, Instant Messaging, Streaming media and Tagging.

Table 4: Web 2.0 Component Awareness

Web 2.0 Components		
		%
Blogs:	265	58.6
News Feeds	230	50.9
Instant Messaging	190	42.0
Streaming Media	100	22.1
Tagging	101	22.3
Social Networking	251	55.5

Among the respondents close to 53% of the respondents were not aware of the fact that web 2.0 can be used for library services or they are not aware web 2.0 as part of library activities. Close to 46% of the respondents knew or practiced web 2.0 services for library activities.

6.2 Respondents' perception on why web 2.0 is used in Libraries

While there is no doubt that the library practitioners are well aware of the concepts of web 2.0 with close to 83% of them responded with an yes to their awareness, the researchers also wanted to find out what the respondents perceive to be the reason for the libraries and librarians to use web 2.0 tools and technologies. Close to 35% of the respondents believe that the use of web 2.0 tools and technologies in libraries is due to the change in Information seeking behavior of the users. While 25% of the users felt that the current trend in libraries especially in information processing, retrieval and dissemination guides towards the usage of web 2.0 tools and technologies.

Table 5: Web 2.0 Component Awareness for Libraries

Awareness of Web. 2.0 for Library Services		%
Web 2.0 as Part of Library Activity (Yes)	210	46.5
Web 2.0 as Part of Library Activity (No)	242	53.5

6.3 Tagging / Comments / Reviews through Web 2.0

Keeping the growing trends in Information Services, especially the users' participation in library services through user Comments, Tagging and Reviews a question was asked on the respondent's awareness of such services into the library catalogues. Close to 48.5% of the respondents answered in the affirmative while close to 42.9% were on the negative. It is interesting to note close to 8.6% of the respondents remained neutral which shows either their unawareness or dilemma on how that can be incorporated into the library services.

6.4 Social Networking Services in Libraries

One of the notable services and ideas of Web 2.0 tools and technologies is Social networking. Boyd and Ellison (2007) defines Social Networking as "web-based services that allow individuals to (1) construct a public or semi-public profile within a bounded system, (2) articulate a list of other users with whom they share a connection, and (3) view and traverse their list of connections and those made by others within the system". While these concepts are new to libraries, the sheer coincidence of sharing and connecting has advanced Social Networking into the realms of Library sphere. Van Zyle points out that "Social Networking, incorporating Web 2.0 technologies, has been credited with the ability to expand social contacts, accelerate business processes, the improvement of customer relations, cost-effective recruitment of high-caliber staff and the improvement of morale, motivation and job satisfaction among staff". As often Social Networking makes uses of websites, social networking is often referred to as Social Networking Sites (SNS).

With the popularity of Social Networking among the library practitioners questions pertaining SNS and their allied influence on the respondents were tested. Specifically whether the users have used SNS as part of their library operations was a major question for which close to 53% of the users responded affirmatively. Close to 41% accepted that they have not used SNS as part of their Library activity. Facebook and Orkut remains the favourite SNS for library professionals with both of them enjoying close to 50% of SNS used by library professionals.

Table 6: Web 2.0 Use for Libraries

Respondents Perception of why Web 2.0 Tools are used in Libraries		
		%
Due to change in Information Seeking Behavior	132	35.8
Because this the current trends in Library	93	25.2
This is Better Option	64	17.3
Change in Internet Technologies	55	14.9
Never Tried This Issue	25	6.8

While we were encouraged by more than 50 response rate on the usage of SNS among the library practitioners on the positive side, we also wanted to see what are the areas where the respondents were most active in the SNS and without doubt communication was the main area where librarians have used SNS, closely followed by Creating Awareness, Socializing, Making Friends and so on. While Specifically New Arrival Display was predominantly dominated through SNS closely followed by Book Discussion and catalogue linking.

Table 7: Awareness about the Collaborative Tools

Are You aware of Tagging/user comments/user reviews which are possible though Web 2.0 Services in your Library Catalogue?		
		%
Yes	219	48.5
No	194	42.9
No Answer	39	8.6

Another area in the library where we thought the web 2.0 tools especially Social Networking Sites will be of more relevance are in identifying whether the SNS have helped them in identifying the availability of electronic resources, ebooks for which close to 280 responses with a whopping 69% have said yes which clearly shows how Social Networking Sites are becoming marketing and awareness creating tools for libraries.

7. LIMITATIONS

While there is no doubt that a survey on the use of next generation web services in libraries especially with a select target group is a welcome addition to understand perspective of users we feel that there were limitations in the general survey. The respondents were not scientifically cho-

Table 8: Awareness & Use of SNS in Library Activities

Have You Ever Used SNS as part of Your Library Activities		
		%
No	240	53.1
Yes	187	41.4
No Response	25	5.5

Which of the following Social Networking Site/s (SNS) You are Following Regularly?	
Facebook	246
Orkut	201
Twitter	115
Ning	94
Hi5	88
Shelfari	29

Table 9: SNS use in Library Activities

Areas where SNS is used by Library practitioners	
Information Communication	296
Create Awareness	175
Socializing	173
Make Friend	132
Debating New Issues	94
As a Hobby	87

Specific Library Activities using SNS	
New Arrival Display	89
Book Discussion Forum	75
Catalogue Linking	69
Overdue Alerts	39

sen as most of them participated voluntarily. There is a possibility that the survey may be one sided since the respondents were already net savvy and would have positively contributed which might have resulted in many respondents answering positively. Though the data collected from this survey was scientifically analysed, it was not separated according to technologically high impact, low impact countries. Though the data available can be manipulated according to country, region and sectors the researchers have deliberately avoided such an analysis owing to differential percentage of response from different countries.

8. CONCLUSION

While admitting that such a survey will certainly enhance the perspective of emerging technologies and services into the library arena more such surveys and user studies are required to enhance the service delivery of today's library professional. These kind of surveys will certainly help administrators and managers to have a glimpse of the needs of

Table 10: SNS use in Library Activities

Have Social Networking Sites helped you to become aware of the availability of the electronic resources, e-books or any other library resources?		
		%
Yes	280	69.1
No	77	19.0
Can't Say	48	11.9

Table 11: Tendency towards use of SNS in Library

If You have not used any SNS for library Activities because of?	
	Nos
You are not enough familiar with this	85
Technical Reason	79
Administrative support is not there	79
Time Consuming	69
You did not find utility of this	32
So Many Web 2.0 Application Not able to decide which one to use	27
You are at al not aware of these technologies	25
Fear of adoption of this technology	13

today's information professionals and provide guidance and assistance to better the services.

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